CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

Order No. 78-61

NPDES PERMIT NO. CA0006009

WASTE DISCHARGE REQUIREMENTS FOR:

DELAVAL TURBINE, INC.
ENGINE AND COMPRESSOR DIVISION
CASTING FACILITY
OAKLAND, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. Delaval Turbine, Inc., Engine and Compressor Division, Casting Facility, hereinafter called the discharger, submitted a report of waste discharge (NPDES Short Form C) dated June 1, 1978 for a reissuance of its NPDES Permit No. CA0006009, adopted February 23, 1973 (Order No. 73-14), which has expired.

2. The discharger currently discharges the following wastes:

   a. Waste 001 consists of 0.8 million gallons per day (mgd) of industrial wastewater from a dust collection system from sand conveyors and grinding operations. The water from the dust scrubbers is discharged to a settling pond and then to Elmhurst Creek.

   b. Waste 002 consists of 0.15 mgd of industrial waste from a steel casting sand reclamation process. The raw wastewater is discharged to 3 settling ponds, in series, and then to Elmhurst Creek.

   c. All sanitary wastes and wastes from plating processes are discharged to the City of Oakland's sanitary sewer system.

3. Wastes 001 and 002 are discharged to Elmhurst Creek approximately one mile from the point where it enters San Leandro Bay, both are navigable waters of the United States, Elmhurst Creek is an ephemeral stream consisting entirely of waste discharges during periods of dry weather.

4. The Board, in April 1975, adopted a Water Quality Control Plan for the San Francisco Bay Basin. The Plan contains water quality objectives for San Francisco Bay and its tributaries.

5. The beneficial uses of San Leandro Bay and Elmhurst Creek are:

   a. Recreation
   b. Fish migration and habitat
   c. Habitat and resting for waterfowl and migratory birds
   d. Industrial water supply
   e. Esthetic enjoyment
   f. Navigation

6. Effluent limitation, and toxic effluent standards, established pursuant to Sections 208(b), 301, 304, and 307, of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharge.

7. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21000) of Division 13 of the Public Resources Code in accordance with Water Code Section 13389.

8. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

9. The Board in a public meeting heard and considered all comments pertaining to the discharge.

10. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act, or amendments thereto, and shall take effect at the end of ten days from date of hearing provided the Regional Administrator, U. S. Environmental Protection Agency, has no objections.

IT IS HEREBY ORDERED that Delaval Turbine, Inc., in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Water Pollution Control act and regulations and guidelines adopted thereunder, shall comply with following:

A. Effluent Limitations

1. The discharge of an effluent containing constituents in excess of the following limits is prohibited:

a. Waste 001

Constituent	Units	30 day Average	Maximum Daily
1. Suspended Solids	lb/day	100	200
	kg/day	45	90
	mg/l	15	30
2. Oil and grease	lb/day	34	68
	kg/day	15	30
	mg/l	5	10
3. Settleable matter	ml/l-hr	-	0.1
4. Dissolved sulfide	mg/l	-	0.1
5. Turbidity	JTU	-	10

b. Waste 002:

Constituent	Units	30 day Average	Maximum Daily
1. Suspended Solids	lb/day	19	38
	kg/day	9	18
	mg/l	15	30
2. Oil and grease	lb/day	6	12
	kg/day	3	6
	mg/l	5	10
3. Settleable matter	ml/l-hr	-	0.1
4. Dissolved Sulfide	mg/l	-	0.1
5. Turbidity	JTU	-	10
6. Cyanide	lb/day	0.13	0.26
	kg/day		
	mg/l	0.1	0.2
7. Phenolic Compounds	lb/day	0.63	1.26
	kg/day		
	mg/l	0.5	1.0
8. Total Chromium	lb/day	-	.013
	kg/day	-	.006
	mg/l	-	.01

2. Discharge of Wastes 001 and 002 shall not have a pH of less than 6.5 nor greater than 8.5.

3. In any representative set of samples Wastes 001 and 002 as discharged shall meet the following limit of quality:

TOXICITY:

The survival of test fishes in 96 hour bioassays of the effluent shall achieve a median of 90% survival for three consecutive samples and a 90 percentile value of not less than 70% survival for 10 consecutive samples.

4. The daily discharge rate is obtained from the following calculation for any calendar day:

$$\text{Daily discharge rate} = \frac{8.34}{N} \sum_{1}^{N} Q_i \; C_i$$

in which N is the number of samples analyzed in any calendar day. Q_i and C_i are the flow rate (MGD) and the constituent concentration (mg/l) respectively, which are associated with each of the N grab samples which may be taken in any calendar day. If a composite sample is taken C_i is the concentration measured in the composite sample, and Q_i is the average flow rate occurring during the period over which samples are composited.

5. The 30-day average discharge rate or concentration shall be the arithmetic average of all the daily values calculated using the results of analyses of all samples collected during any 30 consecutive calendar day period. If fewer than four samples are collected and analyzed during any 30 consecutive calendar day period, compliance with the 30-day average limitation shall not be determined.

B. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended or deposited oil or other products of petroleum origin;

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife or water fowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

a.	Dissolved oxygen	5.0 mg/l minimum. Annual median - 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
b.	Dissolved sulfide	0.1 mg/l maximum.
c.	pH	Variation from natural ambient pH by more than 0.5 pH units.

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

C. Storm Runoff Specifications

1. Runoff, either from precipitation or cleanup operations from plant operations areas, and chemical and sand storage areas shall be treated with discharge No. 001 and No. 002 before discharge to Elmhurst Creek.

2. The erosion of waste materials into waters of the State from the sand storage and disposal areas is prohibited.

D. Provisions

1. Neither the treatment nor the discharge of pollutants shall create a nuisance as defined in the California Water Code.

2. The discharger shall comply with all sections of this Order immediately upon adoption.

3. This Order includes items 1, 3, 5, and 7 of the attached "Reporting Requirements," dated August 8, 1973.

4. This Order includes all items except 3 of the attached "Standard Provisions," dated November 20, 1974.

5. The discharger shall review and update annually its contingency plan as required by Board Resolution No. 74-10 and submitted December 2, 1974. The discharge of pollutants in violation of this Order where the discharger has failed to implement its contingency plan will be a basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

This Order expires on August 14, 1983, and the discharger must file a Report of Waste Discharge in accordance with Title 23, California Administrative Code, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.

In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by a letter, a copy of which shall be forwarded to this Board.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on August 15, 1978.

FRED H. DIERKER
Executive Officer

Attachments:
Reporting Requirements 8/8/73
Standard Provisions 11/20/74
Revised Self-Monitoring Program